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DETAILED ACTION

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/719,890
Filing Date: November 21, 2003
Appellant(s): PODSHIVALOV ET AL.

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GROUP 3600

Julian F. Santos
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 7/17/06 appealing from the Office action mailed 12/13/05.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6813560 Van Diggelen et al 11/2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

i) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

ii) Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Van Diggelen et al (6813560)

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1-20, Van Diggelen et al anticipates the limitations in claims 1-20 as the specification contain the exact limitations disclosed in claims 1-20.

Regarding claim 1, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) discloses a method of distributing satellite navigation data, comprising:

processing satellite signals at each of a plurality of reference stations (104_1, 104_2, 104_3, etc; col. 3, lines 31-65) to receive a respective plurality of satellite navigation data streams (ephemeris, col. 3, lines 31-40);

forming packets (col. 3, lines 38-40; col. 4, lines 16-23) in response to said plurality of satellite navigation data streams to generate a plurality of packetized satellite navigation data streams;

sending each of said plurality of packetized satellite navigation data streams to a processing system 108 (col. 3, lines 41-46; col. 5, lines 29-33);

removing (col. 3, lines 41-46), at said processing system, duplicate packets within said plurality of packetized satellite navigation data streams to generate a combined (providing of latest ephemeris for redistribution over the internet i.e. using internet protocol inherently involves generation and combination of packets of data for distribution or transmission; col. 3, lines 41-46; col. 4, lines 16-47; col. 5, lines 29-34; col. 6, lines 15-47) packet stream; and

sending said combined packet stream into a communication network (col. 4, lines 24-39; col. 6, lines 15-47).

Regarding claim 2, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 1, further comprising: decoding satellite navigation data within said combined packet stream to generate satellite data.

Regarding claim 3, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 2, wherein said satellite data comprises at least one of ephemeris data, almanac data, ionosphere data, universal time offset data, satellite health data, and raw data bits.

Regarding claim 4, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 1, wherein said plurality of satellite navigation data streams comprises global positioning system (GPS) satellite navigation messages, and wherein each of said packets includes a sub-frame of said GPS satellite navigation messages.

Regarding claim 5, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 4, wherein each of said packets includes a header having a satellite identifier and a time-of-week (TOW) value.

Regarding claim 6, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 5, wherein each of said duplicate packets is removed in response to said satellite identifier and said TOW value associated therewith.

Regarding claim 7, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 1, wherein said processing system comprises a hub, and the method further comprises: receiving said combined packet stream from said communication network at a position location server.

Regarding claim 8, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 7, further comprising: decoding satellite navigation data within said combined packet stream to generate satellite data; and storing said satellite data in a cache disposed within said position location server.

Regarding claim 9, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 7, further comprising: receiving, at said position location server, at least one additional packetized satellite navigation data stream; removing duplicate packets within said combined packet stream and said at least one additional packetized satellite navigation data stream to generate another combined packet stream; decoding satellite navigation data within said other combined packet stream to generate satellite data; and storing said satellite data in a cache disposed within said position location server (see rejection to claim 1).

Regarding claim 10, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the method of claim 9, wherein said at least one additional packetized satellite navigation data stream is generated by at least one of an additional hub and a reference station disposed proximate to said position location server (fig. 1).

Regarding claim 11, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system for distributing satellite navigation data, comprising:

a plurality of reference stations (fig. 1) for processing satellite signals to receive a respective plurality of satellite navigation data streams and forming packets in response to said plurality of satellite navigation data streams to generate a plurality of packetized satellite navigation data streams (col. 3, 4, 5); and

a processing system for receiving each of said plurality of packetized satellite navigation data streams;

removing duplicate packets within said plurality of packetized satellite navigation data streams to generate a combined packet stream, and sending (fig. 1) said combined packet stream into a communication network (see rejection of claim 1).

Regarding claim 12, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 11, wherein said processing system includes a processor for decoding satellite navigation data within said combined packet stream to generate satellite data.

Regarding claim 13, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 12, wherein said satellite data comprises at least one of ephemeris data, almanac data, ionosphere data, universal time offset data, satellite health data, and raw data bits.

Regarding claim 14, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 11, wherein said plurality of satellite navigation data streams comprises global positioning system (GPS) satellite navigation messages, and wherein each of said packets includes a sub-frame of said GPS satellite navigation messages.

Regarding claim 15, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 14, wherein each of said packets includes a header having a satellite identifier and a time-of-week (TOW) value.

Regarding claim 16, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 15, wherein each of said duplicate packets is removed in response to said satellite identifier and said TOW value associated therewith.

Regarding claim 17, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 11, wherein said processing system comprises a hub, and the system further comprises: a position location server for receiving said combined packet stream.

Regarding claim 18, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 17, wherein said position location server comprises: a processor for decoding satellite navigation data within said combined packet stream to generate satellite data, and a memory for storing said satellite data.

Regarding claim 19, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose the system of claim 17, further comprising: an additional reference station disposed proximate to said position location server for providing at least one additional packetized satellite navigation data stream; wherein said position location server comprises: a processor for removing duplicate packets within said combined packet stream and said at least one additional packetized satellite navigation data stream to generate another combined packet stream and decoding satellite

navigation data within said other combined packet stream to generate satellite data; and a memory for storing said satellite data (see rejection of claim 1).

Regarding claim 1, Van Diggelen et al (abstract, figs. 1, 5; col. 3, lines 1-col. 4, lines 47; col. 5, lines 20-col. 6, lines 47; col. 7, lines 26-28) disclose an apparatus for distributing satellite navigation data, comprising:

means for processing satellite signals at each of a plurality of reference stations to receive a respective plurality of satellite navigation data streams (fig. 1);

means for forming packets in response to said plurality of satellite navigation data streams to generate a plurality of packetized satellite navigation data streams; means for sending each of said plurality of packetized satellite navigation data streams to a processing system (fig. 1);

means for removing, at said processing system, duplicate packets within said plurality of packetized satellite navigation data streams to generate a combined packet stream; and means for sending said combined packet stream into a communication network (see rejection of claim 1).

(10) Response to Argument

Applicant's arguments filed 7/17/06 have been fully considered but they are not persuasive.

The applicant argues that the prior art VanDiggelen does not disclose ".removing, at said processing system, duplicate packets within said plurality of packetized satellite navigation data streams to generate a combined packet stream; and sending said combined packet stream into a communication network."

In response, the examiner notes that Van Digdelen anticipates "removing, at said processing system 128, duplicate packets (col. 3, lines 40-46) within said plurality of packetized satellite navigation data streams to generate a combined packet stream; and sending (col. 3, lines 40-65, fig. 1) said combined packet stream into a communication network (fig. 1)."

The applicant specifically argues that the prior art fails to teach a combined packet stream. The examiner respectfully disagrees. First as admitted by applicant's page 4, sections 0013, 0014, data transmitted over the Internet using internet protocol are in (IP) packets, in other words a combined packet stream. The applicant further states that the act of removing duplicates automatically forms a combined packet stream, applicants specification sections 0013-0015. By the same token, the prior art plurality of reference stations 104 collect and process satellite data as ephemeris data (which are in packets). The data is sent to a central processor 108 where duplicates of the ephemeris data are removed (col. 3, lines 31-47). After removal, the data are sent over the internet to mobile users. Therefore,

the data sent over the internet using IP protocol are combines (IP) packets (col. 4, lines 16-39). These packets sent over the internet are a combination of packets which are NOT duplicates of each other (col. 3, lines 31-47). The prior art specifically states that the ephemeris data is a 900 bit packet data. The prior art further states that the duplicates of the 900 bit packet data are removed. The prior art further states that the ephemeris (900 bit packets) are processed to compute pseudo range, pseudo range rate, Doppler frequency offset, etc, including removal of duplicates (col. 5, lines 20-54). After the duplicates are removed, the pseudo range models are packed (col. 6, lines 46-48) again and redistributed over the Internet as combined packets.

Applicant's quotations and citations from the prior art clearly indicate applicant's admission that the prior art anticipates the claims.

Applicant's argument that the claimed invention is drawn to the limitation, "removes without extracting satellite data" is unsupported in the claims. It is not clear what all is meant and encompassed by "removes without extracting satellite data". The meets and bounds of the limitation cannot be ascertained since it is understood that removal and extraction refer to the same process. The sections in Van Diggelen that read on the rest of th4e claims have been provided above.

The rejection with respect to Robins is withdrawn.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Conferees:

Jack Keith.

Thomas Black.

Ronnie Mancho